

Installation Instruction and User Manual

.bock^{///}

practico ultra low 9.5/80



Dear valued customer,

In deciding to buy a health care bed from the Hermann Bock GmbH, you have opted for a care product that has a long service life and delivers first class functionality at the highest safety level. Our electrically operated health care beds guarantee optimal lying comfort and allow professional care at the same time. This product was designed with a focus on the elderly, whose confidence must be reinforced and whose life needs protection. With this health care product, we meet these requirements.

We urge you to prevent potential malfunctions and the risk of accidents by complying strictly with the safety and operating instructions and by carrying out the necessary maintenance.

Sincerely yours,

A handwritten signature in black ink, reading "Klaus Bock". The signature is written in a cursive, flowing style with a large, stylized 'K' and 'B'.

Klaus Bock

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1 Introduction and general instructions

The various bed systems from Hermann Bock meet special requirements for the use in care and treatment facilities as well as for home care. Reliable functionality and a long product life make each bed particularly valuable. Our beds need little maintenance with proper operation and care. Each bed from Hermann Bock must pass quality testing in a final inspection before it is shipped anywhere. The beds are manufactured according to the current standards for medically used beds and tested accordingly.

Our beds comply with Standard EN 60601-2-52:2010. The electrical building components comply with safety standard EN 60601-1:2006 for medical devices.

These standards divide the beds in five different areas of use:

1. Intensive care in a hospital; intensive care bed
2. Short-term care in a hospital or other medical facility; patient bed in the hospital
3. Long-term care in medical environment; stationary nursing bed
4. Home-care bed, pure home care bed
5. Ambulant/ residential care

1.1 Intended use

The health care bed is suitable for persons in need of care who are at least 146 cm tall. The person's weight must not exceed 185 kg and must be over 40 kg. The body mass index (BMI) must be greater than or equal to 17. The health care bed may be used in homes for the elderly or nursing homes and rehabilitation facilities. It is used to alleviate a disability and/or to facilitate the lives of people who are in need of care or to make the work of their caregivers easier. Accordingly, the health care beds are designed to be used for the application areas 3 to 5. Any other use is considered improper and is excluded from a possible liability claim.

The Trendelenburg function may be used exclusively under supervision of medical professionals. The health care bed is not suitable for use in hospitals. It is suitable to transport patients. The health care bed is mobile with the patient resting in it. To prepare the transport: lock the castors and drive the lying surface in the safety position. (The clearance between the bottom of the lying surface to the floor is 18 cm). Unlock the castors and move the bed. After the transport, lock the castors.

Attention: The beds come with no special connection options for a potential equalisation. Electrical medical devices connected to the patient's intravascular or intracardiac system must not be used. The operator of the medical products ensures that the combination of the equipment meets the requirements of EN 60601-1:2006.

This user manual contains safety instructions. All persons working with the beds must be acquainted with the contents of these instructions. Improper operation can result in personal injuries.

1.2 Definition of person groups

Operator

Operators (e.g. medical supply stores, specialist dealers, facilities and cost units) include all physical or juridical persons, who use the beds or have the beds used for medical purposes. The briefing on the use of the product shall generally be conducted by the operator.

User

Users are persons whose training, experience or briefing on the product allows them to operate the health care bed or carry out works on it. The user is able to recognize possible hazards and/or to avoid them and to assess the health condition of the patient.

Patient/resident

Persons in need of care as well as disabled and fragile people who are lying in the health care bed.

Qualified personnel

Employees of the operator are referred to as qualified personnel. They are entitled to deliver the health care bed, assemble, dismantle and transport it on the basis of their training or instructions. Besides knowing how to operate, mount and demount the health care bed, these persons must be instructed according to the guidelines concerning the cleaning and disinfection of the health care bed.

1.3 Safety instructions

The intended use/operation of all moving parts is as important for the safety of the person in need of care as well as for the relatives and the caregivers/nursing staff to avoid potentially dangerous situations. This requires the correct installation and operation of the bed. The individual physique of the person in need of care as well as type and the extent of their disability must be taken into account by all means when operating the bed.

Avoid dangers, accidental motor adjustments and incorrect operation by using the disabling function. When the operator, e.g. the nursing staff/caregivers or the care providing relative leaves the room, the entire operating functions of the bed should be disabled. This is achieved by operating the key of the hand control. First, lower the lying surface to the safety position and activate the lock function with a twist of the key (located in the keylock on the backside). Remove the key and check the function of the hand control for safety reasons. Make sure that it is indeed locked.

These recommendations apply particularly:

- if the person in need of care cannot operate the hand control safely due to certain disabilities;
- if the person in need of care or the caregivers could be at risk due to those accidental adjustments;
- if the side rails are in a raised position and there could be danger of trapping and crushing;
- if children are unsupervised in the room with the bed.

Always make sure that the hand control (when not in use) is securely hooked in the support hook at the bed and cannot drop.

As a general rule, the bed should be operated by instructed nursing staff/caregivers, relatives or in attendance of instructed persons.

When adjusting the lying surface, it is particularly important to ensure that no limbs are placed in the side rails of the adjustment range. If the side rails are adjusted, pay attention to the correct lying position of the person in need of care.

Prior to making any electrical adjustment, it should, as a general rule, be made sure that no limbs are positioned in the adjustment range between the chassis and the head or foot part, especially that there are no persons/animals in the area between the floor and the raised lying surface. Danger of being crushed is particularly high in these areas.

The permitted person's weight depends on the total weight of the equipment that has been mounted to the bed (mattresses and other electronic medical devices). For safe capacity, please refer to the type plate on the lying surface frame of the bed.

1.4 Service life / warranty

This health care bed was developed, designed and manufactured for safe operation over a long period of time. With proper operation and maintenance, this health care bed has an expected service life of 15 to 20 years. The service life depends on operating conditions and frequency.

Attention:

Unauthorised technical changes to the product void all warranty claims.

This product is not approved for the North American market, particularly not for the United States of America (USA). Distribution and use of the health care bed in these markets, including through third parties, is prohibited by the manufacturer.

1.5 Type label (example):

(1) **Model: xxx**

(2) Date of manufacturing: xx.xx.xxxx

(3) Serial no. xxxxxxxx-xxx







(4) xxx V ~ xx HZ max. x A

(5) Duty cycle xx % (x min ON / xx min OFF)

(6) Motor protection class IPX4

(7) $\frac{\text{---}}{\Delta} = \text{xxx kg}$ $\frac{\text{---}}{\Delta} = \text{xxx kg}$










(8) Hermann Bock GmbH - Nickelstr. 12
D-33415 Verl / Tel. +49(0)1805/262500

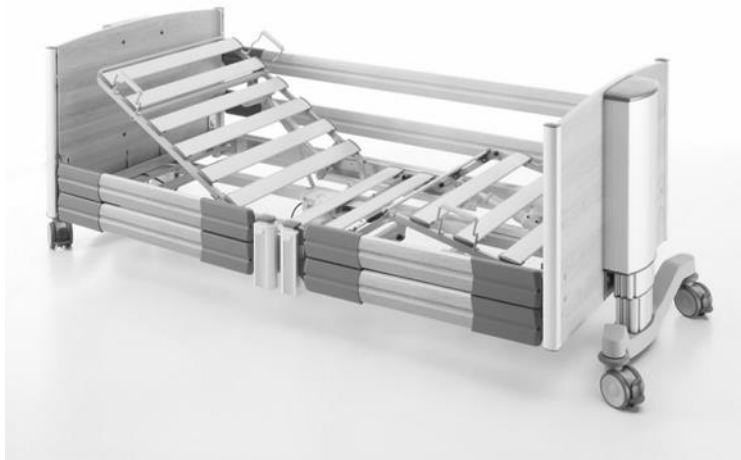







Made in Germany

(9)

- (1) Model designation
- (2) Manufacture date: Day, month and year
- (3) Serial number: Order number - running number
- (4) Mains voltage, mains frequency and power input
- (5) Duty cycle
- (6) Drive protection class
- (7) Maximum patient weight / safe capacity
- (8) Manufacturer
- (9) Symbols (located on the right side)

-  Conformity mark according to the medical device directive
-  IPX4 Protection of electrical equipment against splashing water
-  Medical application part type B
-  Use only in dry rooms
-  Protection class II (double insulation, insulated for protection)
-  Within the European Union, this product must be disposed in a separate waste collection.
Product may not be disposed via the separated municipal waste.
-  Symbol for maximum patient weight
-  Symbol of maximum safe working load
-  Symbol for attending user's manual



2 General description of the functions

Construction design and function

The lying surface with 4 function areas

The lying surface standard consists of a slatted comfort frame (as an option, it can be also provided with a metal lying surface or special suspension systems) and is divided into four functional areas: Backrest, solid seat, upper and lower leg rest.

The comprehensive lying surface frame is welded from a steel/aluminium tube and stove-enamelled with a PES-powder coating. The variable height adjustment of the lying surface is electric and stepless. It is carried out by 24 V DC motors and controlled by the smooth keys of the hand control. The backrest can be adjusted electrically. The leg part consists of a foot support that is divided into two parts. With a touch of a button on the hand control, each individual position can be adjusted continuously. The electronic hand control also allows an automatic 3-way function to set a stretched leg elevation and the chest and the knee bending part.

The chassis

The height adjustment of the beds takes place through two telescoping aluminium lifting columns and a main frame with individual drives. The surface of the tubular steel structure is stove-enamelled with a PES-powder coating.

The side rail

Any health care bed can be equipped on both sides, each with two side rails at a special safety height. The side rails can be lifted and lowered through a rail. The sliding pieces run particularly smoothly and quietly with an impact damper, and each end is fitted with a functional cap. The side rails can be easily operated through an ergonomically designed release button. Depending on the model, shorter or longer partitioned side rail variations are available.

Operating the telescopic split side rails

Each side rail element can be adjusted independently from the rest of the side rail parts. The release buttons for adjustment are on the bottom of the telescopic post and on the top of the appropriate end piece of the health care bed, right next to the metal guides for the side rails.

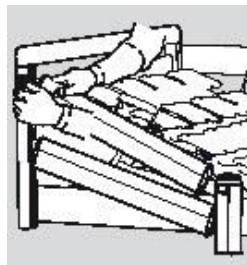
To lower the side rail element, hold the upper knob of the middle post with one hand, lift it up slightly and press with the other hand the trigger button on the middle post in direction of the inside.



The side rail opens at the corresponding place and can be easily lowered downwards as far as it will go. The side rail is now diagonal.

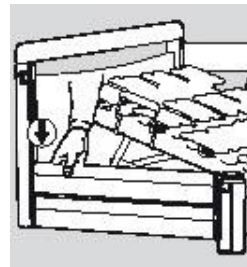


To lower also the other side, please hold the side rail on the side of the end piece in the gripping groove, release the trigger button on the end piece of the health care bed and lower the side rail slowly to the bottom.



The side rail is now in a low position.

If the side rails should be placed in the top position to aid in fall prevention, reach with both hands in the centre of the gripping groove in the upper ride rail and pull the side rail upwards until you hear it click into place at both ends. The side rail is now in a pulled-up position.



When using the telescopic (divided) side rails on this health care bed, it is necessary to install four adjustable feet under the lying surface to prevent that the telescopic post of the side rail sits on the floor. The screwed-on adjustable feet allow lowering of the bed only to a minimum lower height of 15.5 cm.

Hazard note by Bock

Use only original Bock side rails, which are available as accessories for every health care bed.

Use only technically flawless and non-damaged side rails with the allowed gap dimensions.

Make sure that the side rails are engaged securely.

Before installation of the side rail and each new use, inspect all mechanical parts on the bed frame and side rails, which secure the side rails for any possible damage.

The operation of side rails should be done with great care. Fingers can be quickly pinched between the longitudinal pieces.

Fig. 1: Continuous wood side rail, two rails

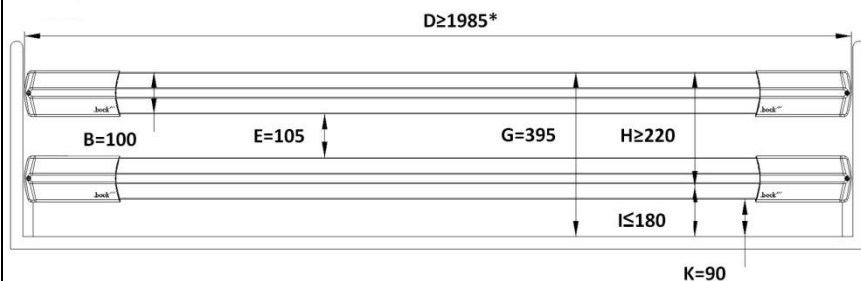


Fig. 2: Telescopic wooden side rail, solo post in the middle

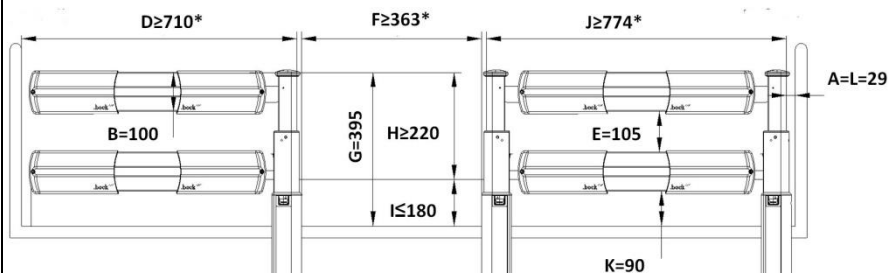
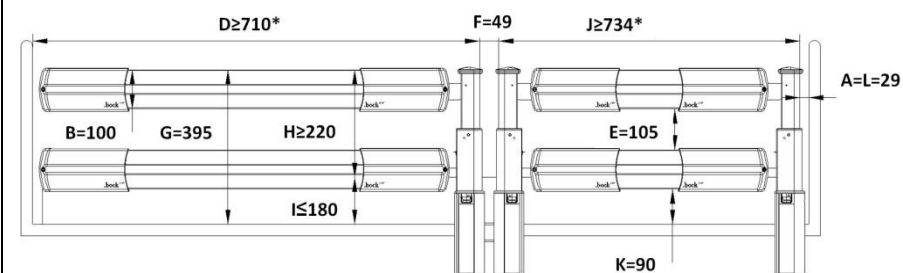


Fig. 3: Telescopic wooden side rail, duo post in the middle



All dimensions in mm.

(*) Depending on the length of the lying surface. The single post at the head and leg end is optional. The dimension in brackets is optional.

Legend

- A: Distance between the head part and the side rail
B: Height 1 of the side rail
C: Height 2 of the side rail
D: Width 1 of the side rail
E: Distance between the elements within the side rail
F: Distance between the divided side rails
G: Distance between the lying surface and the upper edge of the side rail
H: Height of the top edge of the side rail above the mattress without compression
I: Thickness of the mattress for the intended use
J: Width 2 of the side rail
K: Smallest dimension between side rail and lying surface (or panel, if any)
L: Distance between the foot part and the side rail

Item numbers

Designation	item no.
Fig. 1: Continuous wood side rail, two rails	
Wood side rail (set)	91703
Fig. 2: Telescopic wooden side rail, solo post in the middle	
Wood side rail (set)	91868
Fig. 3: Telescopic wooden side rail, duo post in the middle	
Wood side rail long divided (set)	91704
Wood side rail short divided (set)	91705

Hazard note by Bock

Simultaneous use of electrical appliances particularly in the vicinity of the operational bed may result in small electromagnetic interactions of these electric devices, e.g. static noise in the radio. In such rare events, increase the distance of the devices. Do not use the same socket or temporarily switch off the interference source and/or the disturbing or disturbed device. If the bed should be operated with electrical medical equipment (contrary to its intended use), the functions of the bed must first be disabled via the integrated locking function in the hand control for the duration of the application.

3 Electric components

3.1 Drive:

The drive unit consists of individual drives for the electrical adjustment of the back and leg rest part. The level adjustment takes place via two lifting columns that are attached to the head or foot end. A switching power supply with a rectifier that converts the input voltage into low voltage power of 29 VDC (direct current) is part of the internal control box. The motors, lifting columns and the hand control function with this non-hazardous low voltage.

A power adjustment provides constant speed. Therefore, the safety functions comply with protection class II and the moisture barrier protection type IPX4.

The maximum duty cycle is specified on the (type plate) of the bed. For example: 10% (2 min. ON / 18 min. OFF) means that any electronic adjustment can be operated maximal 2 minutes. After that, the unit switches off for 18 minutes (protection against overheating).

If the maximum setting time of two minutes is exceeded by two minutes (e.g. someone plays continuously with the hand control), which could lead to overheating of the drives, the thermal fuse immediately shuts off the power supply to the bed. After a cooling down time of approx. one hour, the power will be again automatically supplied.

3.2 Locking device for all functions

The series hand control is equipped with a built-in locking device, which allows the care givers to lock the hand switch via a key completely or partially for its operation.

3.3 Lockable hand control (first-fault protected)

The base functions can be controlled through the ten operation keys on the hand control. The three icons in the centre indicate a special function that can be carried out by simultaneous applying finger pressure on the adjacent keys. The individual keys are marked with corresponding symbols. The servomotors run until as long as a corresponding key is pressed and held. A coiled cable allows the necessary freedom of movement while operating.

With the rear-mounted suspension unit, the hand control can be attached to the side rail - particularly when cleaning and during the maintenance of the bed. Thus, a possible disruptive position of the hand control can be avoided by simply attaching it to any preferred spot on the bed.

Function keys:

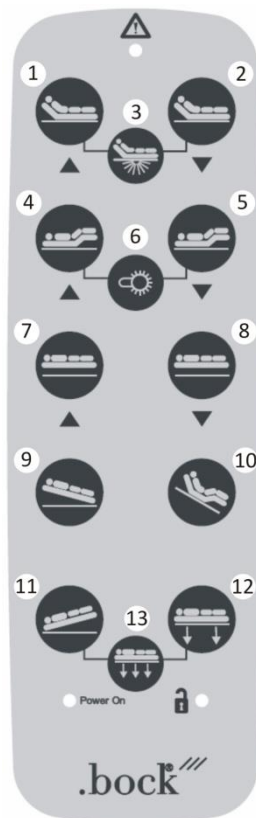
(1)	Back rest up
(2)	Back rest down
(3)	Illumination below the lying surface Please press button 1 + 2 simultaneously
(4)	Foot rest up
(5)	Foot rest down
(6)	Illumination/reading lamp: Please press button 4+5 simultaneously
(7)	Lying surface up
(8)	Lying surface down <i>(Intermediate stop at 37.5 cm exit height; safety stop at 27.5 cm)</i>
(9)	Foot down function (Anti-Trendelenburg)
(10)	Comfort-sitting position up (*)
(11)	Head down function (Trendelenburg) (**)
(12)	Lying surface, back & foot rest down <i>(the bed goes down to the safety stop at 27.5 cm)</i>
(13)	Ultra-low function: Please press button 11 + 12 simultaneously Attention contusion hazards of the feet (Second safety stop at 15.5 cm for accessories and telescopic side rail bars, final stop at 9.5 cm ultra low position (***))

Reset: The reset process is activated by pressing simultaneously button 7 + 8. During this process, after 8 seconds, the bed goes slowly down into its lowest position. You can hear a signal when the reset process is fully completed.

(*) The comfort-sitting position only goes up. All adjusted position can be lowered by pressing the button no.12

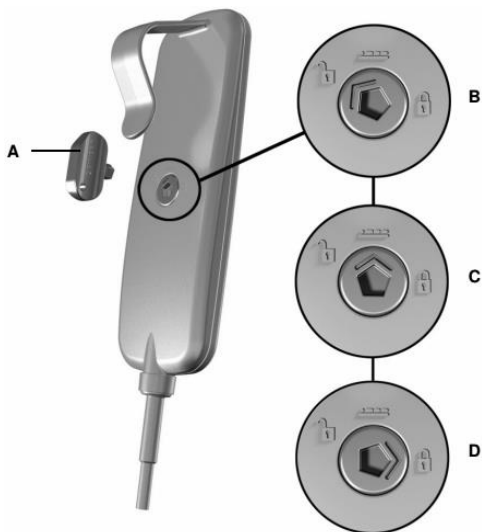
(**) When using the Trendelenburg function, the castors on one end panel have to be unblocked. All castors have to be positioned parallel to the bed's centreline.

(***) Not possible when using splitted (telescopic) side rails.



3.4 Hand control (lock functions)

The hand control comes with an integrated disabling function that can be activated and deactivated with the corresponding key. To disable the entire electrical function, insert the key in the keylock on the backside and turn the lock function on or off with a corresponding twist of the key.



- A: Key
- B: Activation of the hand control buttons
- C: Deactivation of Trendelenburg and ultra-low
- D: Deactivation of the hand control buttons

Hazard note by Bock

Please make sure that the hand control cable is not lead under one of the aluminium longitudinal frame bars. In case of lowering the bed completely into its ultra-low position (floor level), the cable can get damaged.

Execute the reset-function before the initial operation of the bed and after each disconnection from the power supply system.

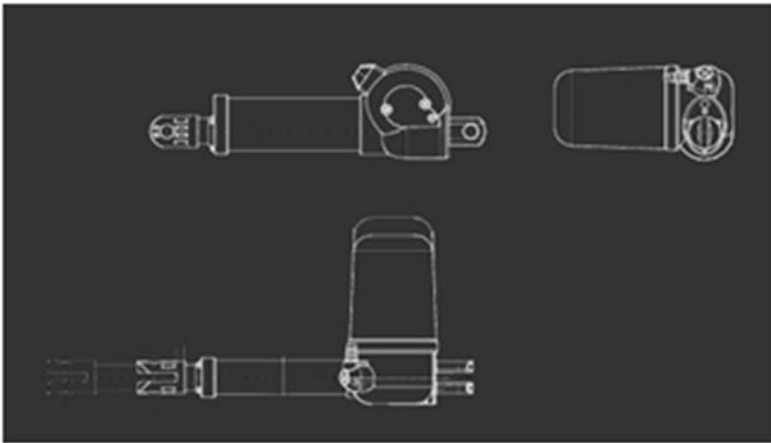
Pay attention to the position of the castors, especially when using the comfort-sitting, Trendelenburg and Anti-Trendelenburg position.

Respect that when using accessories and splitted side rails, the bed is only allowed to go down to the second safety stop at 15.5 cm. When lowering the bed to its ultra-low position (floor level), pay attention to the high crushing hazards (feet, toes and objects e.g. cables) under the aluminium longitudinal bar and end panels.

3.5 Caution: Electric drive

Hermann Bock calls the electrically operated nursing and therapy beds health care beds, because through their multiple functions, they allow the person in need of care to support the healing process mentally and physically and relieve pain at the same time. Electrically operated beds that are medical products need special care in regards to constant safety checks. This includes safety-conscious handling of the bed, daily inspection of electrical equipment and proper maintenance and cleaning.

To prevent damages to the cables, wiring should be conducted outside of the area in which damages could be caused. Furthermore, avoid touching the sharp parts. To prevent injury through an electric shock, avoid the possibilities of too high contact voltages. These circumstances may especially be the case if the power cable is damaged, if inadmissible and excessive leakage currents exist or if liquid was spilled in the motor housing, e.g. during improper cleaning. This damage can cause malfunction of the control, which could result in unwanted movements of single bed elements, posing a risk of injury for the operator and the person in need of care.



4 Drives

4.1 24 Volt drives / lift columns

Hermann Bock GmbH equipped health care beds with the various drive systems of the companies Dewert, Baumeister and Limoss.

4.2 Drive systems

Each drive consists always of four main components.

- Housing
- Motor
- Gear
- Spindle with nut

The housing principle of the individual drive guarantees the permanent function of all drive components. Due to a detailed interior structure, the construction of the housing interior creates an essential prerequisite for the precise integration of the drive technology. The individual drive is characterized through a particularly easy to follow assembly/disassembly design and also an easy installation of the control electronics. The drive has a primary fuse in the mains adapter.

Hazard note by Bock

All drive components must not be opened!

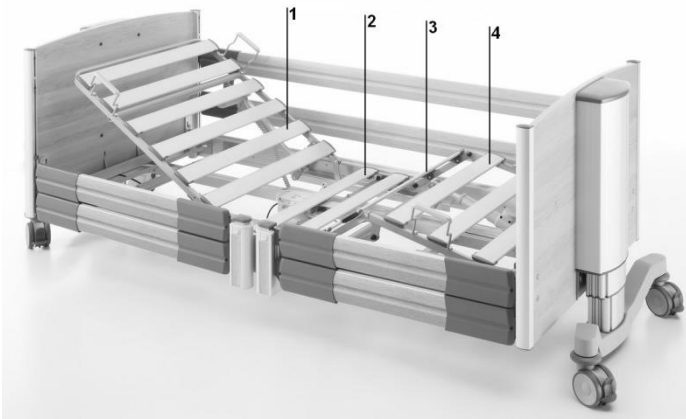
Troubleshooting or exchanging single electrical components may be performed only by special qualified personnel.

5 Assembly and operation

5.1 Technical data

Technical data			practico ultra low 9.5/80
Lying surface dimension: cm			90 x 200
Outer dimension: cm			102 x 240
Safe capacity: kg			220
Max. Weight of person: kg			185
Height adjustment: cm			9.5 - 80
Max. angle of incidence to horizontal:			
- Back part			70 °
- Lower leg part			20 °
- Trendelenburg position			12 °
Side rail height with wooden slats: cm			39.5
Side rail height with ripolux®neo: cm			35
Side rail options:			
- Continuous wood side rail			•
- Telescopic wood side rail			•
Lifter space clearance: cm			> 15
Sound level: dB(A)			< 65
Weights:			
Total incl. continuous wooden side rail: kg			165
Lying surface: kg			66
Wooden end panel incl. lift column: kg			39
Continuous wooden side rail: kg / set			12.5
Telescopic wooden side rail: kg / set			18
Electric data			
Manufacturer	Dewert / Baumeister	Input voltage: V	100-240
		Frequency: Hz	50/60
		max. power consumption: A	4.0

All parts and data are subject to a constant further development and may therefore differ from the mentioned data.



- 1 Back rest
- 2 Fixed seat part
- 3 Upper leg rest
- 4 Lower leg rest

5.2 practico ultra low 9.5/80

Barrier-free, independent, close to the floor: The new practico ultra low 9.5/80 allows comfortable sleeping positions, even with a bed height of only 9.5 cm. Technology in each detail: practico ultra low 9.5/80 can be easily extended and adapted to fit the need of the individual patient. It is really easy: The completely ergonomic and true bed extension is carried out in the blink of an eye. The ride rails are designed for all bed lengths. practico ultra low 9.5/80 provides high comfort to frail people, patients who need care and people with disabilities. It offers high lying comfort and support through easy operation as well as optimal care.

- practico ultra low 9.5/80 is not suitable for use in hospitals.
- Health care bed practico ultra low 9.5/80 has open castors. It makes it suitable to transport patients. The bed is mobile with the patient resting in it. To prepare the transport: lock the castors and drive the lying surface in the safety position (distance between the bottom of the lying surface to the floor is 18 cm). Unlock the castors and move the bed. After the transport, lock the castors.
- The health care bed is suitable for persons in need of care who are at least 146 cm tall. The person's weight must not exceed 185 kg and must be over 40 kg. The Body Mass Index (BMI) must be greater than 17.>Under certain circumstances, practico ultra low 9,5/80 can be used (if desired) for medical purposes with other electric medical equipment (e.g. suction devices, ultrasonic humidifier, food systems, anti-bedsore systems, oxygen concentrators and similar devices). In this event, disable all bed functions for the duration of the application via the integrated disabling function.

Attention: The bed has no special connection options for a potential equalisation. Electrical medical devices connected to the patient's intravascular or intracardiac system must not be used. The operator of the medical products has to ensure that the combination of the equipment meets the requirements of EN 60601-1:2006.

Special features

practico ultra low 9.5/80 can be easily extended and adapted to fit the need of the individual patient. It is really easy: The completely ergonomic and true bed extension is carried out in the blink of an eye. The side rails are provided for all lengths. The result: Comprehensive comfort!

practico ultra low 9.5/80 ready for use

Remove all packaging and transport brackets from the bed and place the parts of the bed on a free and flat surface. The screws of the transport brackets are needed for the assembly of the bed.

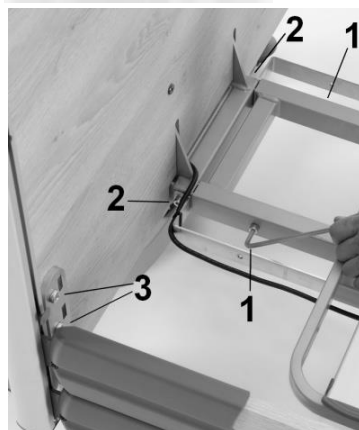


Place the lying surface flat on the floor.

(1) Plug the end panel with the narrow intake in the extension slide on the foot side of the lying surface, connect the supplied hexagon socket screws (M8x25) and tighten firmly.

(2) Screw the galvanized angle brackets also with the hexagon socket screws (M8x20) to the end piece.

(3) Unscrew the cross-head screws from the end panel and screw them to the pull-out made of aluminium of the longitudinal frame. Tighten, if necessary, the set screw too, which is located on the bottom of the longitudinal frame.

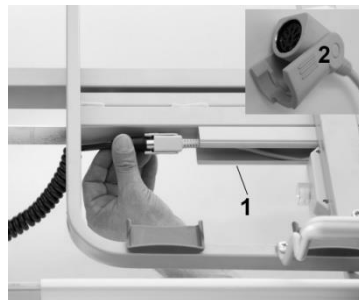


Next, screw the end panel with the broad intake into the supporting girders at the head end and screw it together with hexagon socket screws (M8x25). The appropriate screws are located in the rectangular bar at the intake. Next, repeat step (3) on the head part.

For installation of cable connections, remove some strips from the lying surface. It makes it easier to access the cable canals.



Remove the cover of the (1) cable channels, which open the (2) pull reliefs and insert the connecting plug of the lifting column.



Additionally, run the mains cable from the end piece of the head part through the cable channel and connect it to the back of the control box. Next, place (press) the supplied plastic part onto the control box's power plug.

Place the cable of the lifting column from the head part and the power supply cable in the cable channel, in which also the hand switch cable is located. Guide the cable of the lifting column from the foot part is through the still unused cable channel all the way to the control. Fix this cable at the angle bracket with a cable tie.

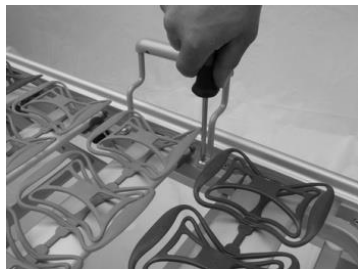
Close the cable channels again completely to prevent any cable falling out. As the surface can be lowered to almost floor level, there is an increased risk of squeezing the cables.

Pin assignment of the control box:

- Red: hand control
- Black: head part of lying surface
- Yellow: foot part of lying surface
- Blue: end panel - head
- White: end panel - foot



Mattress brackets can be disassembled for the transport. With the supplied tapping screws, attach them to the headrest and footrest as shown in the picture.

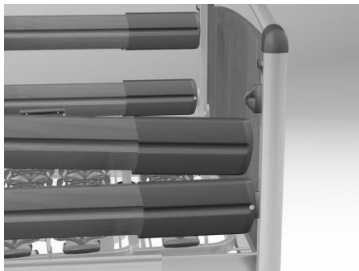


Before operating the bed, make a motor reset as described on page 15.

Standard side rails:

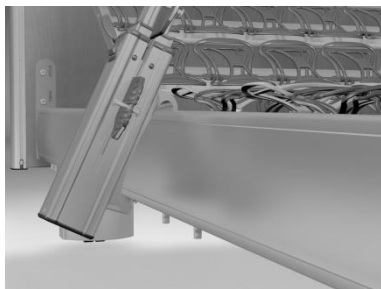
For the installation of continuous side rails, pull the integrated bed extension a little bit to the outside (see below). Next, place the side rail on the receptacle latches and screw them together.

After all side rail are installed, slide the end panel back and tighten the screws again.

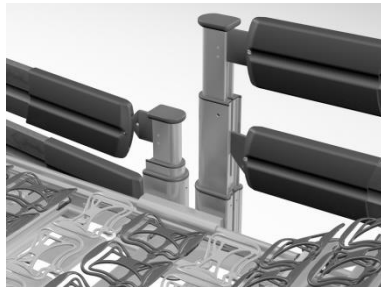


Telescope side rails:

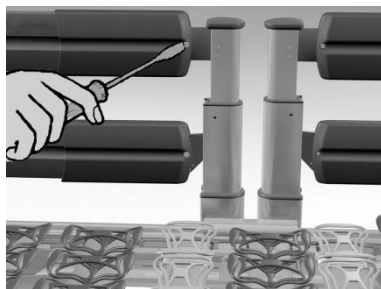
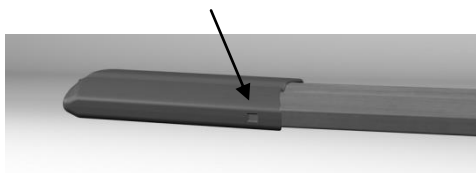
Place the outer posts approximately at the end of the lying surface and the middle posts approximately in the centre on the longitudinal frame of the lying surface.



Next, place the side rail on the receptacle latches and screw them together.

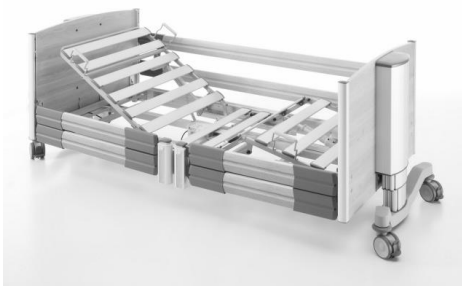


The markings on the side rails must point downwards.

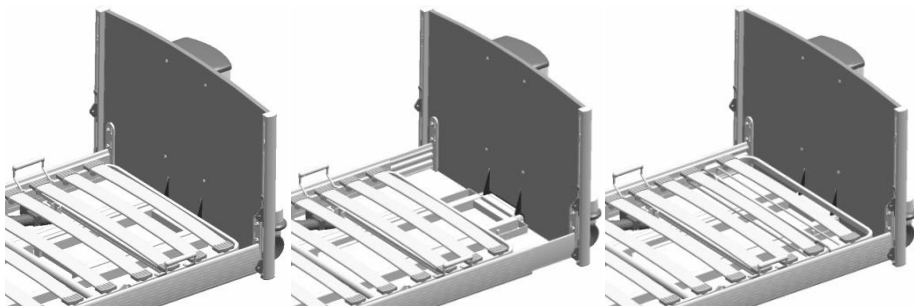


Align the post sideways and tighten them from below.

In case of retrofitting of the telescopic side rails, screw 4 backup feet M10 in the transverse frames of the lying surface. Use of a telescopic side rail allows lowering of the bed to a minimum lower height of 15.5 cm (second safety stop) only.



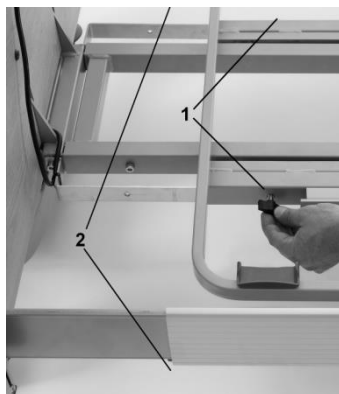
Check all screw connections again before operating the bed.



Bed extension

Remove the two wing screws (1) on the foot part and loosen the two set screws (2).

Pull the foot end panel out, approx. 220 mm.



Take the foot bracket extension (available as accessory) and remove both attached aluminium caps.

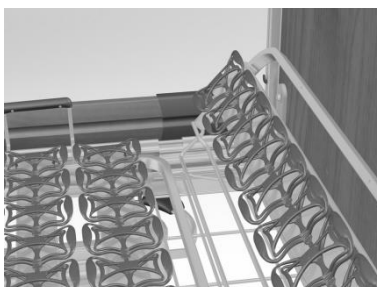
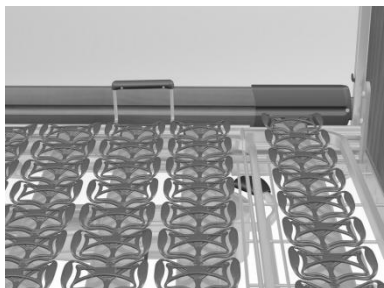
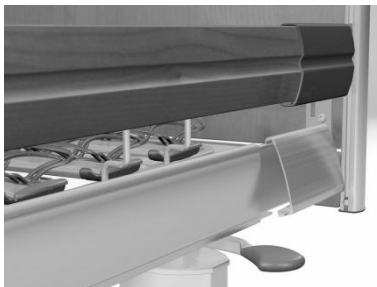


Clip the aluminium caps to the pull-outs.

Slide the foot end panel again back, so that the longitudinal frame and the clipped-on part lie levelled on one another.

Screw the thumb screws on again and tighten them. Also tighten both set screws on the longitudinal sides again below.

Insert the foot bracket extension as shown in the picture.



Hazard note by Bock

The motors meet the water protection standard IPX4. Do not squeeze/crush the cables. Adjustment of moving parts may only be used for the intended use. Hermann Bock GmbH assumes no liability for unauthorized technical changes.

Hazard note by Bock

Do not try to fix failures on the electrical equipment itself. It could be fatal! Either call the customer service of Hermann Bock GmbH or an authorised/licensed electrician who conducts the troubleshooting in compliance with all relevant VDE regulations and safety regulations.

Clean and disinfect the bed before using it again. Also, at the same time, perform a visual inspection to check for any mechanical damages. You will find details hereto in our Safety Guidelines.

5.3 Change of location

If the bed must be moved to another location, please follow these safety instructions:

- Lower the surface with key (5) of the hand control.
- Before proceeding with the health care bed pull the mains plug and attach with the end panel to secure the power cable against falling and being crushed by anything. Make sure that the cable is not dragged over the floor.
- Before inserted the mains plug again, inspect the power cable visually for mechanical damage (dents and kinks, abrasions and bare wires).
- Place the power cable in a way that it will not be rolled over or strained during the operation of the bed or could be damaged when inserting the mains plug again.
- Carry out the rest function as described on page 15.

5.4 Transport, storage and operating conditions

	Transport and storage	Operation
Temperature	0°C to +40°C	10°C to +40°C
Relative humidity	20% to 80%	20% to 70%
Air pressure	800hPa to 1060hPA	

5.5 Function notes

To keep the bed in one location, lock the castor brakes on the chassis. To accomplish this, use your foot to move the locking lever on each castor downwards. Make sure that the castors are parallel to the longitudinal axis of the bed. This is important in the Trendelenburg and the Anti-Trendelenburg position but also in the comfort seat position. (Here, the brakes on one end panel must be unlocked.)

If necessary, pull the integrated side rails up until they lock into place. With different mattress thicknesses, the minimum height must not be below 22 cm, taken from the upper edge of the side rail above the mattress excluding any compression. (Furthermore, use a third detachable rail.)

5.6 Disposal

Each of the components made of plastic, metal and wood are recyclable and can be disposed/recycled in compliance with the relevant legal provisions. Please note that electric adjustable health care beds or nursing beds are considered commercially used electronic scrap according to the WEEE-EC directive 2012/19/EC (b2b). All replaced electrical and electronic components of the electrical adjustment system must be disposed

properly in accordance with the requirements of the Waste Electrical and Electronic Equipment Act (in short: ElektroG).

5.7 Troubleshooting

This overview helps you to detect and correct malfunctions on your own and explains, what kind of malfunctions require the consultation of suitably qualified service personnel.

Malfunction	Potential causes	Remedy
The drive units cannot be controlled via the hand control	Power cable is not connected	Insert power cable
	Signals of the lifting columns are incorrectly processed within the control	Carry out Reset Transport as described on page 15.
	No voltage in the socket	Check the socket or the fuse box
	Plug connector of the hand control not fixed firmly	Check the plug-in connection on the motor
	Hand control or drive unit defective	Notify the operator or Bock customer service
	Disabling function or control box in the hand control activated	Disabling function or control box in the hand control deactivated
When buttons are pressed, the drive units stop after a short time	There is an obstruction in the adjustment range	Remove obstruction
	The safe capacity/working load has been exceeded	Reduce the load
The drives stop after a longer adjustment time	The adjustment time or safe capacity/working load has been exceeded and the polyswitch in the transformer of the control unit has responded to increased heat	Allow the drive system to cool down sufficiently for at least one minute
Opposite functions when operating the hand control	Motor connector switched internally	Notify the operator or Bock customer service
Individual drive units run in one direction only	Hand control, drive unit or controller defective	Notify the operator or Bock customer service
Drive units stop and bed remains in a tilted position	Constant operation of adjustment functions	Move lying surface in bottom or top position as this will straighten it again horizontally. Activate disabling function in hand control

6 Accessories

As it is our goal to satisfy every requirement of the person in need of care, Hermann Bock offers practical and independence promoting accessories. The installation is done in a quick and easy manner using the fixing points on the bed that have already been prepared for this purpose. It goes without saying that every element of our additional equipment range meets the special quality and safety standards of Bock. In addition to the standard accessories included in the basic equipment, the customer can also choose from our variety of accessories, which is available for each bed model. These optional accessories vary depending on the bed model. They range from technical elements around mattresses up to the occasional extra bed. A wide offer of wooden finishes and a variety of colours allow for the harmonious integration of each health care bed with any kind of furniture.

6.1 Special dimensions

Special dimensions make up an essential part of the manufacture at Hermann Bock.

Optimal lying comfort for persons in need of care who have a particular physique can only be achieved by means of custom-built models. With its customized models, Hermann Bock enables customers to have their health care bed tailored to fit the individually physical requirements of the person in need of care. For body heights up from 185 cm, Hermann Bock recommends the use of a bed extension that allows an extension of the lying surface to a length of up to 220 cm. That way a high degree of lying comfort can also be ensured for taller persons while the functionality remains the same.

Hazard note by Bock

Never try to repair any defects or malfunctions of the electrical equipment on your own. It could be fatal! Either call the customer service of Hermann Bock GmbH or an authorised/licensed electrician who conducts the troubleshooting in compliance with all relevant VDE regulations and safety regulations.

Top tip by Bock

The representative of the service hotline of Hermann Bock are looking forward to informing you about the best retrofitting solution for your bed. Hotline no. 0180.5262500 (14 cents/min. for calls from landline phones, 42 cents/min. for calls from mobile phones).

A wide product range of auxiliary furniture complements the various bed models up to the complete interior design of your home. This combination creates a care and living comfort resulting in perfect harmony.

7 Cleaning, maintenance and disinfection

The individual bed elements consist of high quality materials. The surface of the steel tubes is covered with a durable PES-powder coating. All surfaces of the wooden parts are surface-sealed with an ecologically coating that is low on harmful substances. All bed elements are easy to clean and cared for using wipe and spray disinfection means according to the applicable cleaning requirements with respect to the various areas of application. Observing the following care instructions will retain the usability and visual appearance of your health care bed for a long time to come.

7.1 Cleaning and maintenance

Steel tubes and vanished metal parts:

Please use a wet wipe and a regular mild household detergent for the cleaning and care of these surfaces.

Wooden-, decorative-, and plastic elements:

All standard furniture cleaners and cleaning detergents can be used. Using a wet wipe without detergent additives for the cleaning of the plastic elements should generally be sufficient. For care of the plastic surfaces use a product that is specifically suitable for plastics.

Drive:

To prevent the intrusion of moisture into the motor housing, we recommended using only a damp rag to clean outside housing.

Lying surface systems ripolux neo:

Use a damp rag without adding any detergents, or, if deemed necessary, a detergent that is exclusively suitable for plastics and clean the spring elements made of plastics. In case of heavy contamination, remove the spring elements from the supporting elements and the supporting elements from the frame of the lying surface. The dismantled plastics elements can be rinsed or spray-washed with hot water to get them clean. For the disinfection, the components should be sprayed with a detergent suitable for plastics. Most of the moisture drips off the plastic surface by slightly shaking it, while the rest will dry on its own within a very short time. Remount the elements after they have completely dried. If required, you can also remove each of the individual lying surface elements completely from the frame to clean them.

Hazard note by Bock

Clean and disinfect the bed before using it again. At the same time perform a visual inspection to check for any mechanical damages.

7.2 Disinfection

All methods in accordance to the standard EN 12720 can be used for the wipe disinfection. Use only mild and gentle disinfection methods to retain the material resistance of the plastic elements such as the drive housing, decorative elements, ripolux neo springs. Concentrated acids, aromatic and chlorinated hydrocarbons as well as detergents containing highly concentrated alcohol, ether, ester and ketone may damage the material and should therefore be avoided.

7.3 Avoidance of hazards

Please make sure to consider the following guidelines with respect to the electrical component parts of your health care bed. These guidelines are very important to avoid hazards related to cleaning and disinfection. Non-observance of these guidelines may result in considerable damage of the electrical lines and the drive.

1. Pull the mains plug and position it in such a way that contact with excessive amounts of water or detergents can be excluded.
2. Check all plug-connections for correct position according to the instructions.
3. Check the cables and electrical component parts for damage. Should you detect any damage, do not perform any cleaning operations but first have the defects repaired by the manufacturer or an authorised/ licensed electrician.
4. Before starting the operation, check the mains plug for residual moisture and dry or blow out the device, if necessary.
5. On any suspicion of the intrusion of moisture into the electrical components, disconnect the mains plug immediately and do not re-establish the connection. Put the bed out of operation immediately, attach an appropriate visible label and contact the manufacturer/supplier.

Hazard note by Bock

Use of abrasive cleansers and/or detergents containing grinding particles, cleaning pads or stainless steel cleaners for the cleaning is absolutely not recommended. Neither use organic solvents such as halogenated/aromatic hydrocarbons and ketones nor detergents containing acid or alkaline.

Never clean the bed using a water hose or high-pressure cleaner as this might lead to the intrusion of fluid into the electrical component parts, which causes malfunctions and hazards.

8 Guidelines and manufacturer's declaration

Electromagnetic emission

The *medizinisches Bett* is intended for use in the electromagnetic environment specified below.
The customer or the user of the *medizinisches Bett* should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11 (partly)	Group 1	The medical used bed uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11 (partly)	Class B	The <i>medizinisches Bett</i> is suitable for use in all establishments other than domestic and those directly connected to the public-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/flicker emissions IEC 61000-3-3	Complies	

Electromagnetic immunity

The *medizinisches Bett* is intended for use in the electromagnetic environment specified below.
The customer or the user of the *medizinisches Bett* should assure that it is used in such an environment.


Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrostatic transient/ burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output lines	± 2 kV for power supply lines ± 1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV differential mode ± 2 kV common mode	± 1 kV differential mode ± 2 kV common mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	< 5 % U_t (>95 % dip in U_t) for 0,5 cycle 40 % U_t (60 % dip in U_t) for 5 cycles 70 % U_t (30 % dip in U_t) for 25 cycles < 5 % U_T (>95 % dip in U_t) for 5 sec	< 5 % U_t (>95 % dip in U_t) for 0,5 cycle 40 % U_t (60 % dip in U_t) for 5 cycles 70 % U_t (30 % dip in U_t) for 25 cycles < 5 % U_t (>95 % dip in U_t) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the <i>medizinisches Bett</i> requires continued operation during power mains interruptions, it is recommended that the <i>medizinisches Bett</i> be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

NOTE: U_t is the a. c. mains voltage prior to application of the test level.

Electromagnetic immunity

The *medizinisches Bett* is intended for use in the electromagnetic environment specified below.

The customer or the user of the *medizinisches Bett* should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3 V	3 V	<p>Portable and mobile RF communications equipment should be used no closer to any part of the EQUIPMENT <i>medizinisches Bett</i>, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance: $d = \left[\frac{7}{3} \right] \sqrt{P}$</p> <p>$d = \left[\frac{3,5}{3} \right] \sqrt{P}$ 80 MHz to 800 MHz</p> <p>$d = \left[\frac{7}{3} \right] \sqrt{P}$ 800 MHz to 2,5 GHz</p> <p>where p is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).^a</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,^a should be less than the compliance level in each frequency range.^b</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 
Radiated RF IEC 61000-4-3	3 V/m	3 V/m	

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the *medizinisches Bett* is used exceeds the applicable RF compliance level above, the *medizinisches Bett* should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the *medizinisches Bett*.

b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than $[V_1]$ V/m.

Recommended separation distances between portable

and mobile RF communications equipment and the *medizinisches Bett*.

The *medizinisches Bett* is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled.

The customer or the user of the *medizinisches Bett* can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the *medizinisches Bett* as recommended below, according to the maximum output power of the communications equipment

Rated maximum output of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = \left[\frac{1,6}{3} \right] \sqrt{P}$	80 MHz to 800 MHz $d = \left[\frac{1,6}{3} \right] \sqrt{P}$	800 MHz to 2,5 GHz $d = \left[\frac{7}{3} \right] \sqrt{P}$
0,01	0.12	0.12	0.23
0,1	0.37	0.37	0.74
1	1.17	1.17	2.33
10	3.69	3.69	7.38
100	11.67	11.67	23.33

For transmitters rated at a maximum output power not listed above the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

9 Declaration of conformity

Manufacturer:

Hermann Bock GmbH
Nickelstraße 12
33415 Verl

Product description/model

practico ultra low 9.5/80

Classification:

Medical products class I,
norm 1 and 12 referring to appendix IX of MDI

Choose conformity evaluation process:

Annex VII of MDD

Hereby we declare that the above specified products comply with the provisions of the directive 93/42/EWC concerning advice for medical products. The entire associated documentation is kept in the premises of the manufacturer.

Applied standards:

Harmonized standards for which the proof of concordance can be supplied:

EN 60601-1:2006

Medical electric devices - part 1:

General definitions for the safety - including the essential performance characteristics

EN 60601-1-2:2007

Medical electric devices - part 1-2:

General definitions for the safety - including the essential performance characteristics - collateral standard: Electro-magnetic tolerance – requirements and testing.

EN 60601-2-52:2010

Medical electric devices - part 2-52:

General definitions for the safety - including the essential performance characteristics of medical beds.


EN ISO 14971:2012

Application of the risk management for medical products.

Verl, 15. September 2015



Klaus Bock
(Company management)



Dr. Stefan Kettelhoit
(Company management)

10 Continuous functionality check including service

Regular safety inspections ensure the maintenance of the highest possible safety level and are considered an important safety precaution. Medical devices must be inspected regularly in terms of safety according to the stipulated regulations of the manufacturer and the generally accepted rules of technology. The safety-related protection measures are subject to different requirements and demands. This also applies to the potential wear and tear in the daily use. To prevent such risks, constant and consistent compliance with the deadlines for regular technical safety controls (TSC) is absolutely necessary. The manufacturer has no influence on the operator's adherence with respect to the observance of these regulations concerning electric beds. Bock facilitates the observance of the necessary precautionary measures to be taken by means of their time-saving services.

The execution of the inspection, assessment, and documentation must be performed only by or under supervision of professional persons such as electricians or electro-technically instructed persons who have a thorough knowledge of the relevant provisions and are able to recognize possible impacts and hazards.


In case that there is no suitable person on part of the operator in order to perform the Safety-technical control, Bock's service offers you to carry out the Safety technical control including check and observance of the respective inspection terms for a charge.

It is stipulated by the company Hermann Bock GmbH to execute an Safety-technical control for at least once a year and before and after each re-use of the bed.

In order to facilitate the execution of all necessary safety inspections, the company Hermann Bock GmbH provides you with the Safety-technical control-checklist which can be found in the assembly- and operation manual. Please make a copy of the checklist as a form for your safety-technical inspection. The Safety technical control-checklist serves as evidence report of the performed inspection and needs to be kept on file.

The Safety technical control-checklist is also available as download from our website: www.bock.net.

Attention: In case of unauthorized technical modification of the product, all warranty claims extinguish.

TSC check list according to MPBetreibV (Medical Devices Operator Ordinance), BGV A3 and DIN EN 62353		Issuing date: 1 July 2015
Test specimen	<input type="checkbox"/> Electric bed <input type="checkbox"/> Mechanic bed <input type="checkbox"/> Insert frame	
Model designation		
Series/inventory number:		
Year of manufacture:		
Manufacturer:	Hermann Bock GmbH	

Visual inspection:

No.	Description	Yes	No	Remark
General:				
1	Type plate/sticker present on bed and legible?	<input type="checkbox"/>	<input type="checkbox"/>	
2	Operating manual available?	<input type="checkbox"/>	<input type="checkbox"/>	
3	Is the safe capacity/working load (weight of patient plus mattress weight plus accessory weight) as mentioned on the type plate observed?	<input type="checkbox"/>	<input type="checkbox"/>	
Electric components:				
4	Power cable, connecting cables and plug without scratches, dents, kinks, porous parts or bare wires?	<input type="checkbox"/>	<input type="checkbox"/>	
5	Strain relief firmly fastened and efficient?	<input type="checkbox"/>	<input type="checkbox"/>	
6	Correct and secure cable leading and cable connections?	<input type="checkbox"/>	<input type="checkbox"/>	
7	Housings of motors and hand control without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
8	Motor lift pipes without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
Chassis (with scissors construction beds) / end pieces (of actuator beds):				
9	Chassis construction free of defects with no ruptured welding seams?	<input type="checkbox"/>	<input type="checkbox"/>	
10	Castors and bumper rollers (if available) without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
11	Plastic end caps and mechanical connecting elements (screws, bolts, etc.) complete and without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
Lying surface and end pieces:				
12	Wooden slats, aluminium/steel bars, carrier plate or springs without damages? (No cracks, no fractures, tight fit, enough pressure, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	
13	Frame of lying surface and lifting parts free of defects with no ruptured welding seams?	<input type="checkbox"/>	<input type="checkbox"/>	
14	Plastic end caps and mechanical connecting elements (screws, bolts, etc.) complete and without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
15	Bed accessories (lifting pole, stand-up help, triangle handle, etc.) safely attached and without any signs of wear and tear?	<input type="checkbox"/>	<input type="checkbox"/>	
16	Tight fit and no cracks or breakages of head and foot end pieces?	<input type="checkbox"/>	<input type="checkbox"/>	
Side rails:				
17	Side rails without cracks, breakages or damages?	<input type="checkbox"/>	<input type="checkbox"/>	
18	Distance between side rail shafts not more than 12 cm?	<input type="checkbox"/>	<input type="checkbox"/>	
19	Height of side rails above the mattress at least 22 cm?	<input type="checkbox"/>	<input type="checkbox"/>	
20	Distance between end panels and side rails and/or distance between divided side rails less than 6 cm or greater than 31.8 cm?	<input type="checkbox"/>	<input type="checkbox"/>	

Name, location:		
Address:		
Place and postcode:		
Station/room:		
Name of the tester/date:		



Functional testing:


No.	Description	Yes	No	Remark
Side rails:				
21	Smooth running of the side rail in the tracks and safe locking into place?	<input type="checkbox"/>	<input type="checkbox"/>	
22	Sufficient mounting and firm seat of the side rail shafts/parts?	<input type="checkbox"/>	<input type="checkbox"/>	
23	Load stress test of the side rails without deformation?	<input type="checkbox"/>	<input type="checkbox"/>	
Lying surface:				
24	Back part, leg part adjustment and special functions properly and without any obstacles?	<input type="checkbox"/>	<input type="checkbox"/>	
25	Safe grid mechanism of lower leg rest (if available) in every step, even under stress?	<input type="checkbox"/>	<input type="checkbox"/>	
26	Is the clamping effect of the 6 eccentric clamps (domiflex 2 / domiflex 2 wash) sufficient? If not, the lock nut possibly could use a bit more fastening!	<input type="checkbox"/>	<input type="checkbox"/>	
Chassis (with scissors construction beds) / end panel (of actuator beds):				
27	Height adjustment properly and without any obstacles?	<input type="checkbox"/>	<input type="checkbox"/>	
28	Safe braking effect, blocking and free running of wheels?	<input type="checkbox"/>	<input type="checkbox"/>	
Electric components:				
29	Testing of hand control (keys and disabling function) all working properly without any defects?	<input type="checkbox"/>	<input type="checkbox"/>	
30	Testing of battery / block battery / emergency lowering: Function properly and without any defects?	<input type="checkbox"/>	<input type="checkbox"/>	

Electric measuring:

No.	Description	Yes	No	Measured value
Insulation resistance - (must be only measured on old models before manufacture year of 2002.)				
31	Insulation resistance – measured value larger than 7MΩ?	<input type="checkbox"/>	<input type="checkbox"/>	
Device leakage current – (It must be measured with each TSC. Only it is a domiflex 2 (item no. 271) or domiflex 2 wash (item no. 272) with a Limoss 24 V combinatorial circuit device (SMPS) drive system or a Dewert 24 V combinatorial circuit device (SMPS): no leakage current measurement must be carried out during the service life of the health care bed when the visual and functional testing (electric components) was passed.)				
32	Device leakage current - measured value smaller than 0.5mA?	<input type="checkbox"/>	<input type="checkbox"/>	

Evaluation

No.	Description	Yes	No	Remark
33	All values/inspection within the permissible range passed?	<input type="checkbox"/>	<input type="checkbox"/>	
In the event the inspection result did not pass:		<input type="checkbox"/> Repair <input type="checkbox"/> Sorting		
Next inspection		Signature of tester		

TSC check list according to MPBetreibV (Medical Devices Operator Ordinance), BGV A3 and DIN EN 62353		Issuing date: 1 July 2015
Test specimen	<input type="checkbox"/> Electric bed <input type="checkbox"/> Mechanic bed <input type="checkbox"/> Insert frame	
Model designation		
Series/inventory number:		
Year of manufacture:		
Manufacturer:	Hermann Bock GmbH	

Visual inspection:

No.	Description	Yes	No	Remark
General:				
1	Type plate/sticker present on bed and legible?	<input type="checkbox"/>	<input type="checkbox"/>	
2	Operating manual available?	<input type="checkbox"/>	<input type="checkbox"/>	
3	Is the safe capacity/working load (weight of patient plus mattress weight plus accessory weight) as mentioned on the type plate observed?	<input type="checkbox"/>	<input type="checkbox"/>	
Electric components:				
4	Power cable, connecting cables and plug without scratches, dents, kinks, porous parts or bare wires?	<input type="checkbox"/>	<input type="checkbox"/>	
5	Strain relief firmly fastened and efficient?	<input type="checkbox"/>	<input type="checkbox"/>	
6	Correct and secure cable leading and cable connections?	<input type="checkbox"/>	<input type="checkbox"/>	
7	Housings of motors and hand control without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
8	Motor lift pipes without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
Chassis (with scissors construction beds) / end pieces (of actuator beds):				
9	Chassis construction free of defects with no ruptured welding seams?	<input type="checkbox"/>	<input type="checkbox"/>	
10	Castors and bumper rollers (if available) without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
11	Plastic end caps and mechanical connecting elements (screws, bolts, etc.) complete and without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
Lying surface and end pieces:				
12	Wooden slats, aluminium/steel bars, carrier plate or springs without damages? (No cracks, no fractures, tight fit, enough pressure, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	
13	Frame of lying surface and lifting parts free of defects with no ruptured welding seams?	<input type="checkbox"/>	<input type="checkbox"/>	
14	Plastic end caps and mechanical connecting elements (screws, bolts, etc.) complete and without damages?	<input type="checkbox"/>	<input type="checkbox"/>	
15	Bed accessories (lifting pole, stand-up help, triangle handle, etc.) safely attached and without any signs of wear and tear?	<input type="checkbox"/>	<input type="checkbox"/>	
16	Tight fit and no cracks or breakages of head and foot end pieces?	<input type="checkbox"/>	<input type="checkbox"/>	
Side rails:				
17	Side rails without cracks, breakages or damages?	<input type="checkbox"/>	<input type="checkbox"/>	
18	Distance between side rail shafts not more than 12 cm?	<input type="checkbox"/>	<input type="checkbox"/>	
19	Height of side rails above the mattress at least 22 cm?	<input type="checkbox"/>	<input type="checkbox"/>	
20	Distance between end panels and side rails and/or distance between divided side rails less than 6 cm or greater than 31.8 cm?	<input type="checkbox"/>	<input type="checkbox"/>	

Name, location:		
Address:		
Place and postcode:		
Station/room:		
Name of the tester/date:		



Functional testing:

No.	Description	Yes	No	Remark
Side rails:				
21	Smooth running of the side rail in the tracks and safe locking into place?	<input type="checkbox"/>	<input type="checkbox"/>	
22	Sufficient mounting and firm seat of the side rail shafts/parts?	<input type="checkbox"/>	<input type="checkbox"/>	
23	Load stress test of the side rails without deformation?	<input type="checkbox"/>	<input type="checkbox"/>	
Lying surface:				
24	Back part, leg part adjustment and special functions properly and without any obstacles?	<input type="checkbox"/>	<input type="checkbox"/>	
25	Safe grid mechanism of lower leg rest (if available) in every step, even under stress?	<input type="checkbox"/>	<input type="checkbox"/>	
26	Is the clamping effect of the 6 eccentric clamps (domiflex 2 / domiflex 2 wash) sufficient? If not, the lock nut possibly could use a bit more fastening!	<input type="checkbox"/>	<input type="checkbox"/>	
Chassis (with scissors construction beds) / end panels (of actuator beds):				
27	Height adjustment properly and without any obstacles?	<input type="checkbox"/>	<input type="checkbox"/>	
28	Safe braking effect, blocking and free running of wheels?	<input type="checkbox"/>	<input type="checkbox"/>	
Electric components:				
29	Testing of hand control (keys and disabling function) all working properly without any defects?	<input type="checkbox"/>	<input type="checkbox"/>	
30	Testing of battery / block battery / emergency lowering: Function properly and without any defects?	<input type="checkbox"/>	<input type="checkbox"/>	

Electric measuring:

No.	Description	Yes	No	Measured value
Insulation resistance - (must be only measured on old models before manufacture year of 2002.)				
31	Insulation resistance – measured value larger than 7MΩ?	<input type="checkbox"/>	<input type="checkbox"/>	
Device leakage current – (It must be measured with each TSC. Only it is a domiflex 2 (item no. 271) or domiflex 2 wash (item no. 272) with a Limoss 24 V combinatorial circuit device (SMPS) drive system or a Dewert 24 V combinatorial circuit device (SMPS): no leakage current measurement must be carried out during the service life of the health care bed when the visual and functional testing (electric components) was passed.)				
32	Device leakage current - measured value smaller than 0.5mA?	<input type="checkbox"/>	<input type="checkbox"/>	

Evaluation

No.	Description	Yes	No	Remark
33	All values/inspection within the permissible range passed?	<input type="checkbox"/>	<input type="checkbox"/>	
In the event the inspection result did not pass:		<input type="checkbox"/> Repair <input type="checkbox"/> Sorting		
Next inspection		Signature of tester		



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Our SALES PARTNERS

Our business partners pursue the same strategy as we do: quality, innovation and above-average standards that are internationally recognized. You can rely on our business partners as you can rely on us.

Please note that only our authorised personnel and our sales partners can provide training, supply of spare parts, repairs, safety technical controls (TSC) and other services. Otherwise, all warranty claims will be void.

Here is a short list of our business partners:

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Belgium	AXAMED nv-sa www.axamed.be
UK	Carebase www.carebase.net
Estonia	ITAK Ltd. www.itak.ee
Finland	RESPECTA OY www.respecta.fi
Greece	Wheel Rehabilitation Products www.wheel.gr
Israel	Israel Quality of Life Center www.iqlc.com
Italy	Enrico Spadoni www.bock.net
Croatia	BEZ LIMITA d.o.o. www.bezlimita.hr
Lebanon	ALBERT MASSAAD s.a.r.l. www.albertmassaad.com
Luxembourg	Stoll www.matelas.lu
New Zealand	Cubro Ltd. www.cubro.co.nz
The Netherlands	Eureva B.V. www.eureva.nl
Austria	Reha Service GesmbH www.rehaservice.at
Poland	Timago International Group Sp. z o.o. www.timago.pl
Romania	Donis srl www.donis.ro
Russia	Lazerlink
Switzerland	Sodimed www.sodimed.ch
Serbia	Proxi-Med d.o.o www.proxi-med.co.rs
Slovenia	Medimaj d.o.o. www.medimaj.com
Slovakia	Servis Invo www.servisinvo.sk
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